

Material Safety Data Sheet

Section 1: Product Information		
Product Name: NWLSS™ Superoxide Dismutase ELISA		
Product Number: NWK-SOD01		
Manufacturer's Information:		
Company Name:	Northwest Life Science Specialties, LLC	
Address:	5131 NE 94th Avenue Vancouver, WA 98683	
Emergency Phone:	888-449-3091, 360-449-3091	
Section 2: Components		
Part Description	Quantity	
20X Concentrated Wash Buffer containing 1% Tween 20:	50 mL	
20X Concentrated Assay Buffer containing 1% Tween 20 and 10% BSA	5 mL	
Substrate Solution I (3' 3,3',5,5'-Tetramethylbenzidine) containing N.N-Dimethylformamide:	7 mL	
Substrate Solution II (0.02% buffered H2O2):	7 mL	
Phosphoric Acid Stop Solution (1M):	15 mL	
Cu/Zn SOD StandardNitrotyrosine (reconstituted volume)	2 X 0.5 mL	
Anti-Hu Cu/Zn SOD-HRP Conjugate	2 X 0.2 mL	
96 well microplates (12 X 8 well strips) pre-coated with anti-hu Cu/Zn SOD antibody:	2 each	
Section 3: Hazardous Ingredients		
Known Hazardous Components:	CAS Number	Percent
3' 3,3',5,5'-Tetramethylbenzidine	54827-17-7	1%
N,N-Dimethylformamide	68-12-2	26%
Ortho Phosphoric Acid	7664-38-2	9%
Hydrogen Peroxide	7722-84-1	0.02%
Section 4: Fire and Explosion Data		
None of the components of this product pose a significant risk in case of fire. Fire fighting media should be selected as appropriate to surrounding fire conditions. Firefighters should wear suitable protective gear to limit exposure possibilities including inhalation.		
Section 5: Stability and Reactivity		
The unopened product is stable until the date indicated on the label if stored as specified. Individual and reconstituted components are stable as specified in the product insert. There are no known hazardous reactions between these components.		

Section 6: Toxicological Information

3' 3,3',5,5'-Tetramethylbenzidine:	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
	LD50	135 mg/kg	IP	Rat
	LD50	316 mg/kg	Oral	Quail

Acute Effects: Irritant
Irritating to eyes, respiratory system and skin.

Chronic Exposure: Mutagen

<u>Test</u>	<u>Dose</u>	<u>Route</u>	<u>Species</u>
Micronucleus	112500 ug/kg	IP	Mouse

<u>Test</u>	<u>Dose</u>	<u>Cell Type</u>	<u>Species</u>
Mammalian Somatic	30700 ug/kg	Lymphocyte	Mouse

N.N-Dimethylformamide	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
	LD50	2800 mg/kg	Inhalation	Rat

Acute Effects: Harmful if swallowed, inhaled or absorbed through skin
Irritating to eyes, respiratory system and skin.
Ingestion causes stomach pain, nausea and vomiting, diarrhea, dizziness and Headache.

Chronic Effects:
Damage to liver and kidneys.

Ortho Phosphoric Acid	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
	LD50	1530 mg/kg	Oral	Rat
	LD50	2740 mg/kg	Dermal	Rabbit
	LC50	>850 mg/m ³	Inhalation	Rat

Acute Effects: Moderate irritant
Irritating to eyes, respiratory system and skin.
Harmful if swallowed.
Very toxic by inhalation.

Chronic Effects:
No Data

Hydrogen Peroxide	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
	LD50	3000 mg/kg	Dermal	Rat
	LD50	>50 g/kg	IV	Mouse
	LC50	>850 mg/m ³	ORAL	Rabbit

Acute Effects: Moderate irritant
Irritating to eyes, respiratory system and skin.
Harmful if swallowed.
Very toxic by inhalation.

Chronic Effects: Carcinogen-Mutagen

Carcinogenicity:
Has been shown to be carcinogenic in laboratory animals after 2 year oral exposure.

Mutagenicity:

<u>Test</u>	<u>Dose</u>	<u>Cell type</u>	<u>Species</u>
DNA Damage	9 uM/L	Lymphocyte	Human

<u>Test</u>	<u>Dose</u>	<u>Cell Type</u>	<u>Species</u>
Mammalian Somatic	50 uM/L	Lymphocyte	Rat

Section 7: Preventive Measures / Exposure Control	
The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that laboratory personnel minimize direct skin or eye contact by following standard laboratory safety procedures when handling this product. Standard safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing.	
Section 8: First Aid Measures	
<u>Skin Exposure</u>	Remove any contaminated clothing. Flush affected area with copious amounts of water for at least 15 minutes then wash thoroughly. If irritation persists, contact a physician to seek medical advice.
<u>Eye Exposure</u>	If wearing contact lenses, remove them. Flush with copious amounts of water for at least 15 minutes.
<u>Ingestion</u>	If swallowed and individual is conscious, wash out mouth with water. Contact a physician to seek medical advice.
<u>Inhalation</u>	Move to fresh air. If difficulty breathing, oxygen may be administered. If breathing stops, administer artificial respiration and seek emergency medical assistance.
Section 9: Accidental Release / Spillage Measures	
Ventilate area. Shut off all sources of ignition. Wear appropriate protective gear. Wipe or pick-up spilled material, place in sealed container if necessary, dispose of in accordance with federal, state, and local regulations. Wash spill site thoroughly after material pick-up is complete.	
Section 10: Handling and Storage	
This product should be stored as recommended on the product label. All components should be kept in tightly closed containers. Refer to the Storage section of the product insert for additional information. This product should only be handled and used by qualified, trained professional laboratory personnel.	
Section 11: Other Information	
This information is believed to be correct however does not claim to be all inclusive and is intended as a general guide only. Northwest Life Science Specialties, LLC shall not be held liable for any damage resulting from handling of or contact with this product or components therein. The burden of safe use of this and other products used in connection with this product rests solely with the user.	